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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,999	12/14/2000	Robert D. Wachel	42390.P9125	1391

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EXAMINER	
JAMAL, ALEXANDER	
ART UNIT	**PAPER NUMBER**
2643	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/737,999	WACHEL, ROBERT D.	
	Examiner	Art Unit	
	Alexander Jamal	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-5** rejected under 35 U.S.C. 103(a) as being unpatentable over De Bruycker et al (6272219), and further in view of Alaimo et al. (6614811).

a. **Claim 1:** De Bruycker discloses a method of providing a dsl and POTS service (ABSTRACT) comprising:

i. Connecting a communications line (DSL+ADSL Line in Fig. 6) to a chassis. The chassis is inherent to the PairGain Line card 75 (Fig. 6) for the purpose of physically supporting the card.

ii. Providing a DSL service onto the communication line (Fig. 6)

iii. Providing a POTS service onto the communication line (Fig. 6)

However, De Bruycker does not specify using a first circuit board in the chassis for implementing the DSL service, and a second circuit board in the chassis to implement the POTS service.

Alaimo teaches the use of a modular, multiservice telecommunications access device that utilizes separate peripheral cards (ABSTRACT, Figs. 2,3) that may be

inserted into a chassis and connected via a backplane (Col 3 lines 45-62) (Col 4 lines 30-45). He teaches that there is a need for the access devices to be flexible to that individual businesses may configure and use the device for a number of applications (Col 1 lines 44-63). It would have been obvious to one of ordinary skill in the art at the time of this application to implement the POTS and DSL services disclosed by De Bruycker as circuit cards (ie. a first and second card) in a multiservice, configurable shelf like the one disclosed by Alaimo for the advantage of providing flexibility and expandability in adding or changing services to the subscribers.

b. **Claims 2/3:** Alaimo discloses that the circuit boards used in the shelf may be hot-swappable (Col 2 line 22-30).

c. **Claim 4:** De Bruycker discloses a splitter module 18 (Fig. 5) that separates and combines the DSL signals from the POTS signals. He also discloses that the splitter module may be implemented as a separate module (that inherently comprises a circuit board for the purpose of holding the circuit components) that may couple directly to the backplane (on the backside wire-wraps pins for example) (Col 4 lines 45-67).

d. **Claim 5:** De Bruycker discloses that the splitter comprises a low pass filter to filter out the first signals used to provide the DSL (ADSL in De Bruycker's disclosure) service and a high pass filter to filter out the second signals used to provide the POTS service (DSL in De Bruycker's disclosure) (Col 3 lines 33-67).

3. **Claims 6-13** rejected under 35 U.S.C. 103(a) as being unpatentable over De Bruycker et al (6272219), and further in view of Alaimo et al. (6614811), and further in view of Williamson et al (6477249).

a. **Claim 6:** De Bruycker discloses a method of splitting a DSL (ADSL) and POTS service (DSL) (ABSTRACT) (Col 3 lines 33-67) (Figs. 5,6) comprising:

i. Using a splitter with high and low pass filters to split/combine the signals (Col 3 lines 33-67).

ii. Providing a DSL service onto the communication line (Fig. 6)

iii. Providing a POTS service onto the communication line (Fig. 6)

However, De Bruycker does not specify using a first circuit board for implementing the DSL service, and a second circuit board in the chassis to implement the POTS service. Furthermore, he does not specify using passive components for the splitters.

Alaimo teaches the use of a modular, multiservice telecommunications access device that utilizes separate peripheral cards (ABSTRACT, Figs. 2,3) that may be inserted into a chassis and connected via a backplane (Col 3 lines 45-62) (Col 4 lines 30-45). He teaches that there is a need for the access devices to be flexible to that individual businesses may configure and use the device for a number of applications (Col 1 lines 44-63). It would have been obvious to one of ordinary skill in the art at the time of this application to implement the POTS and DSL services disclosed by De Bruycker as circuit cards (ie. a first and second card) in a multiservice, configurable shelf like the one

disclosed by Alaimo for the advantage of providing flexibility and expandability in adding or changing services to the subscribers.

Williamson discloses a communications signal splitter (using high-pass and low-pass filters) for use with ADSL and POTS traffic (ABSTRACT). He further teaches that the splitter is implemented with passive components and that passive components minimize power consumption are small and can be made cheaply (Col 3 lines 15-25). It would have been obvious to one of ordinary skill in the art at the time of this application to implement passive filters for the splitters for the purpose of minimizing power consumption and allow for small and cheap construction of the splitters.

b. **Claim 7:** De Bruycker discloses that the splitters may be mounted on the wire wrap pins of a backplane (Col 4 lines 45-67). This would make the backplane a midplane with the DSL and POTS (ADSL and DSL) boards plugged into the main side of the midplane and the splitter (comprising the passive components) boards (transition boards) plugged into the second side of the midplane board.

c. **Claim 8:** Alaimo discloses that the circuit boards used in the shelf may be hot-swappable (Col 2 line 22-30).

d. **Claim 9:** A network data line (comprising DSL and ADSL signals) is attached to the splitter (transition) board as seen in De Bruycker Fig. 5.

e. **Claim 10:** De Bruycker discloses that the splitter comprises a high pass filter to provide the DSL (ADSL in De Bruycker's disclosure) service and a low pass filter to

provide the POTS (SLIC signals) service (DSL in De Bruycker's disclosure) (Col 3 lines 33-67).

f. **Claim 11:** De Bruycker discloses that the splitter module (comprising high and low pass filters) may be implemented as a separate module (that inherently comprises a circuit board for the purpose of holding the circuit components) (Col 4 lines 37-67). Hence the splitter module would be a transition board.

g. **Claim 12:** De Bruycker discloses that the splitters (transition boards) may be mounted on the wire wrap pins of a backplane (Col 4 lines 45-67). This would make the backplane a midplane with the DSL and POTS (ADSL and DSL) boards plugged into the main side of the midplane and the splitter boards (transition boards) plugged into the second side of the midplane board.

h. **Claim 13:** Alaimo discloses that the circuit boards used in the shelf may be hot-swappable (Col 2 line 22-30).

4. **Claims 14-16** rejected under 35 U.S.C. 103(a) as being unpatentable over De Bruycker et al (6272219), and further in view of Alaimo et al. (6614811), and further in view of Williamson et al (6477249).

a. **Claim 14:** De Bruycker discloses a method of handling DSL (ADSL) and POTS (DSL) signals (ABSTRACT) (Col 3 lines 33-67) (Figs. 5,6) comprising:

i. Using a splitter with high and low pass filters to split/combine (receive and separate) the signals (Col 3 lines 33-67) (Fig. 5). He discloses the splitters may be separate modules that inherently comprise circuit boards to mount the

splitter circuitry (Col 4 lines 45-67). Thus the splitter modules are transition boards.

ii. Providing a DSL service (Fig. 6)

iii. Providing a POTS service (Fig. 6)

However, De Bruycker does not specify using a first hot-swappable circuit board for implementing the DSL service, and a second hot-swappable circuit board to implement the POTS service. Furthermore, he does not specify using passive components for the splitters.

Alaimo teaches the use of a modular, multiservice telecommunications access device that utilizes separate peripheral cards (ABSTRACT, Figs. 2,3) that may be inserted into a chassis and connected via a backplane (Col 3 lines 45-62) (Col 4 lines 30-45). He teaches that there is a need for the access devices to be flexible to that individual businesses may configure and use the device for a number of applications (Col 1 lines 44-63). It would have been obvious to one of ordinary skill in the art at the time of this application to implement the POTS and DSL services disclosed by De Bruycker as circuit cards (ie. a first and second card) in a multiservice, configurable shelf like the one disclosed by Alaimo for the advantage of providing flexibility and expandability in adding or changing services to the subscribers.

Williamson discloses a communications signal splitter (using high-pass and low-pass filters) for use with ADSL and POTS traffic (ABSTRACT). He further teaches that the splitter is implemented with passive components and that passive components

minimize power consumption are small and can be made cheaply (Col 3 lines 15-25). It would have been obvious to one of ordinary skill in the art at the time of this application to implement passive filters for the splitters for the purpose of minimizing power consumption and allow for small and cheap construction of the splitters.

b. **Claims 15/16:** De Bruycker discloses that the splitters (transition boards) may be mounted on the wire wrap pins of a backplane (Col 4 lines 45-67). This would make the backplane a midplane with the DSL and POTS (ADSL and DSL) boards plugged into the main side of the midplane and the splitter boards (transition boards) plugged into the second side of the midplane board.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ
March 2, 2004

DUC NGUYEN
PRIMARY EXAMINER